



# UNITED STATES PATENT AND TRADEMARK OFFICE

MM

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,974	09/05/2003	Stephen P. Hines	01-3644-32CON	8935
7590	04/16/2004		EXAMINER	
Jonh E. Wagner, Esq. LAW OFFICES OF JOHN E. WAGNER 3541 Ocean View Boulevard Glendale, CA 91208			CRUZ, MAGDA	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/655,974	Applicant(s) HINES, STEPHEN P.	
	Examiner Magda Cruz	Art Unit 2851	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-22, 27-33, 37, 38 and 40-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-22, 27-30, 37, 38 and 40-44 is/are allowed.
- 6) ☒ Claim(s) 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/05/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 09/05/2003 has being considered by the examiner.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larussa in view of Machtig et al.

Larussa (US Patent Number 6,318,868 B1) discloses apparatus (210) for producing an aerial image (218) of an object (214) comprising a housing including a window therein (Figure 8), support means (224) for an object (214) to be displayed as an aerial image (218) outside of said window; means for illuminating the object to be displayed (column 5, lines 13-16); video display means within said housing coupled to said video for producing in said housing an image of the object (column 5, lines 16-20); a beamsplitter (34) in said housing positioned at approximately 45 degrees with respect to said video display of the object (14), said beamsplitter (34) also positioned respect to said window of said housing, at approximately 45 degrees with a focusing reflector (12)

in said housing directed at said beamsplitter (34) for receiving a partially reflected image of said object from said video display and for reflecting the image of the object out of said window to form an aerial image of the object outside of said housing (column 4, lines 20-38).

Larussa teaches the salient features of the present invention, except a video camera means within said housing directed toward the object to be displayed, wherein said video camera and illuminating means and the object are located in a light sealed enclosure within said housing, including support means outside of said housing including a platform located in the region of the aerial display of the object whereby the aerial image of the object displayed appears to rest on said platform. However, Larussa discloses computer operated displays (column 6, lines 41-42) and CRT to generate a luminous image (column 5, lines 21-22).

Machtig et al. (US Patent Number 6,042,235) discloses a video camera means (250) within said housing (248) directed toward the object to be displayed (240), wherein said video camera (250) and illuminating means (190) and the object are located in a light sealed enclosure within said housing (248), including support means outside of said housing including a platform located in the region of the aerial display of the object whereby the aerial image of the object displayed appears to rest on said platform (column 19, lines 27-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the video camera, illuminating and support means disclosed by Machtig et al. in combination with Larussa's invention, for the purpose of

having a device to be contained in a display housing that is compact and can be used for entertaining video games, advertising kiosks, among numerous other uses (column 4, lines 14-17).

***Allowable Subject Matter***

4. Claims 20-22, 27-30, 37-38 and 40-44 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach an apparatus for producing an aerial image of an object, comprising in combination with the additionally recited elements, partially silvered planar mirror positioned in the optical path of light rays from said illuminated object; whereby light rays from said object are partially reflected by said partially silvered beamsplitter toward said focusing reflector, and then reflected and focused by the focusing reflector directly through said partially silvered beamsplitter and through said window to produce an aerial image of said object outside of said housing; means for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-

2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (571) 272-2112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Magda Cruz  
Patent Examiner  
April 14, 2004